[0015] That is, according to the present invention, there is provide a manufacturing method for a semiconductor device, including:

[0016] a step of forming a layer to be peeled off containing an element onto a substrate;

[0017] a step of attaching a support to the layer peeled containing the element, and then peeling the support from the substrate using physical means; and

[0018] a step of attaching a transfer body to the layer to be peeled off containing the element, and sandwiching the element between the support and the transfer body,

[0019] the method being characterized in that:

[0020] the element is a thin film transistor in which semiconductor layers overlapping with a gate cathode while sandwiching an insulating film therebetween serve as channels, and the step of forming the semiconductor layers includes a process of irradiating a laser light that scans in the same direction as channel length directions of the channels.

[0021] However, according to the above-mentioned construction, if the mechanical strength of the layer to be peeled off is sufficient, the transfer body which anchors the layer to be peeled off may not need to be attached.

[0022] Note that, the above-mentioned construction is characterized in that a plurality of the thin film transistors are provided, and the channel length directions of the plurality of thin film transistors are all arranged in the same direction.

[0023] Further, the above-mentioned construction is characterized in that the above-mentioned support has a curved surface that is curved in a convex or concave shape, and the direction in which the above-mentioned support is curved and the direction of the above-mentioned channel lengths are different from each other. Further, in the case where a transfer body is to be attached, the transfer body also has a curved surface that is curved in a concave or convex shape fitting with the curved surface of the support. Therefore, the above-mentioned construction is characterized in that the above-mentioned transfer body has the concave or convex curved surface, and the direction in which the above-mentioned support is curved and the direction of the above-mentioned channel lengths are different.

[0024] Further, the above-mentioned construction is characterized in that when it is formed as a liquid crystal display device, the above-mentioned support is an opposing substrate, the above-mentioned element has a pixel electrode, and the space between the pixel electrode and the opposing substrate is filled with a liquid crystal material.

[0025] Further, the above-mentioned construction is characterized in that when it is formed as a light emitting device having a light emitting element in which a layer containing an organic compound serves as a light emitting layer, the above-mentioned support is a sealing material, and the above-mentioned element is the light emitting element.

[0026] Further, according to the above-mentioned construction, the method of performing the peeling is not particularly restricted, and it is possible to use a method in which a separation layer is provided between the layer to be peeled off and the substrate, and the separation layer is removed by means of a chemical solution (an etchant) to separate the layer to be peeled off and the substrate, or a method in which a separation layer constituted of amorphous silicon (or polysilicon) is provided between the layer to be peeled off and the substrate, and laser light is irradiated through the substrate to expel hydrogen contained in the amorphous silicon, whereby gaps are created and the layer to be peeled off and the substrate are thus separated. Note that, in the case where the laser light is used for the peeling, the elements contained in the layer to be peeled off should be formed with the thermal processing temperature set at 410° C. or less so that the hydrogen is not expelled before the peeling.

[0027] Further, as another method of peeling, it is also possible to use a peeling method in which film stress occurring between two layers is utilized to perform the peeling. In this peeling method, a metallic layer, preferably a nitrided metallic layer, is provided onto the substrate, and then an oxidized layer is provided contacting the above-mentioned nitrided metallic layer, so that the element is formed onto the oxidized layer. In this case, the film will not peel off even during the film application processing or during thermal processing at over 500° C., and a clean separation within the oxidized layer or at its surface can be achieved easily with a physical means. Further, in order to further the peeling, thermal processing or laser radiation processing may be performed before performing the peeling with the above-mentioned physical means.

[0028] According to the manufacturing method of the present invention for manufacturing a semiconductor device using a peeling method in which film stress occurring between the two layers is utilized to perform the peeling, there is provided a method of manufacturing a semiconductor device, characterized by including:

[0029] a first step of forming onto a first substrate a layer to be peeled off that contains a semiconductor element;

[0030] a second step of adhering a second substrate to the layer to be peeled off with a first adhesive, and sandwiching the layer to be peeled off between the first substrate and the second substrate;

[0031] a third step of separating the layer to be peeled off and the first substrate;

[0032] a fourth step of adhering a third substrate to the layer to be peeled off with a second adhesive, and sandwiching the layer to be peeled off between the second substrate and the third substrate;

[0033] a fifth step of separating the layer to be peeled off and the second substrate, and forming the layer to be peeled off, for which the second adhesive and the third substrate serve as a support; and

[0034] a sixth step of curving the third substrate.

[0035] According to the above-mentioned construction, in the fifth step, the first adhesive is dissolved in a solvent and removed, and the layer to be peeled off and the second substrate are separated, or alternatively the first adhesive is a photosensitive adhesive, and, in the fifth step, light is irradiated to separate the layer to be peeled off and the second substrate. Further, it is desirable that the first sub-